AMENDMENTS TO THE CLAIMS

Please amend the claims as follows:

1. **(Currently Amended)** A peptide consisting of 18 amino acids, the peptide having the primary structure: 8 AA – Cysteine – 2 AA – Citrulline – 1 AA – Cysteine – 4 AA (SEQ ID NO:4); wherein the peptide ~~[comprising a sequence of 14-50 amino acids characterised in that~~

~~it]~~ contains a peptide turn comprising at least one citrulline residue, and

~~[it contains less than 12 amino acids between two cysteine residues, with said citrulline residue being one of the amino acids between said cysteine residues and~~

~~]~~ wherein said peptide is specifically recognised by rheumatoid arthritis autoimmune antibodies from patients suffering from rheumatoid arthritis.

2. (Original) A peptide according to claim 1 characterised in that said peptide is a cyclic peptide.

3. (Previously Presented) A peptide according to claim 1 characterised in that said peptide is biotinylated.

4. (Previously Presented) A peptide according to claim 1 characterised in that said peptide is a synthetic peptide.

5.–7. (Cancelled)

8. **(Currently Amended)** A peptide according to claim 1 characterised in that the amino acids flanking the citrulline residue are selected from glycine and serine ~~[do not interact with the citrulline side chain]~~.

9. **(Currently Amended)** A peptide according to claim 1 comprising the amino acid sequence

~~[QDTIHGHPCSXXGHRCGY (SEQ ID NO: 7), or~~

~~QDTIHGHPCSSXGHRCGY (SEQ ID NO: 8), or~~

~~QDTIHGHPCSXXGHQCGY (SEQ ID NO: 9), or~~

~~QDTIHGHPCSXXGHRCGQ (SEQ ID NO: 10), or~~

~~QDTIHGHPCSXXGHQCGQ (SEQ ID NO: 11), or]~~

QDTIHGHPCSXXGCRPGY (SEQ ID NO: 12)~~[,]~~ or

~~[HGHPCSXXGHRCGY (SEQ ID NO: 13), or~~

~~HGHPCSXXGCRPGY (SEQ ID NO: 14), or~~

~~HGHGCDXXGHRCGQ (SEQ ID NO: 15), or~~

~~HGHGCDSXGHRCGQ (SEQ ID NO: 16), or]~~

QDTIVGWGCDSXGCRPGQ (SEQ ID NO: 17)~~[, or~~

~~VGWGCDSXGCRPGQ (SEQ ID NO: 18)]~~.

10.–11. (Cancelled)

12. (Previously Presented) A diagnostic kit for use in detecting rheumatoid arthritis, said kit comprising at least one peptide according to claim 1, with said peptide or antibody optionally bound to a solid support.

13. (Previously Presented) A diagnostic kit according to claim 12, said kit comprising a range of peptides according to claim 1, optionally in combination with antigens that constitute immunogenic determinants for other auto-immune diseases, wherein said peptides are attached to specific locations on a solid substrate.

14. (Previously Presented) A diagnostic kit according to claim 13, wherein said solid support is a membrane strip.

15.–17. (Cancelled)

18. (Previously Presented) An immunotoxin molecule comprising a cell recognition molecule being a peptide of claim 1, covalently bound to a toxin molecule or active fragment thereof.

19. (Cancelled)

20. (Previously Presented) A diagnosticum for rheumatoid arthritis comprising a peptide according to claim 1 or an immunotoxin molecule according to claim 18.

21.–22. (Cancelled)

23. (Previously Presented) A method for detecting antibodies present in sera from patients with rheumatoid arthritis, comprising:

a) contacting a biological sample to be analyzed for the presence of said antibodies with a peptide of claim 1, and

b) detecting the immunological complex formed between said antibodies and said peptide.

24.–27 (Cancelled)

--28. **(New)** The method of claim 23 wherein the peptide has the amino acid sequence QDTIHGHPCSXXGCRPGY (SEQ ID NO: 12).

29. **(New)** The method of claim 23 wherein the peptide has the amino acid sequence QDTIVGWGCDSXGCRPGQ (SEQ ID NO: 17).--